a light receiving function of an angle-diversity type; and

a multi-beam transmitter for outputting a plurality of beams,

wherein in the multi-beam transmitter, directions of the plurality of optical transmitters are set to specific directions different from each other so as to form a plurality of space cells each having a predetermined size.

28. A base station according to claim 26 for use in a space-division multiplex optical wireless local area network for interconnecting a plurality of terminals, the base station comprising:

a light receiving function of an angle-diversity type; and

a multi-beam transmitter for outputting a plurality of beams,

wherein in the multi-beam transmitter, directional half-value angles of the plurality of optical transmitters are set to specific angles different from each other so as to form a plurality of space cells each having a predetermined size.

29. A base station according to claim 28, wherein a directional angle (half-value angle) ϕ of each of a light source of each of the plurality of optical transmitters of the multi-beam transmitter is represented by $\phi = C \times \theta$ where C is a constant in a range from 0.70 to 1.00, and θ is an angle of each of the plurality of space cells each having a predetermined size.

30. A base station according to claim 26, wherein the optical receiver of an angle-diversity type includes a lens system dedicated to reception having a spatial resolution higher than a spatial resolution of the plurality of space cells each having a predetermined size.

31. A base station according to claim 26, wherein a radius of a space cell provided by each of the plurality of optical transmitters is in a range from 20 cm to 100 cm at a predetermined maximum possible distance for communication.

32. A space-division multiplex optical wireless local area network for interconnecting a plurality of terminals via a base station, the local area network comprising:

a light receiving function of an angle-diversity type; and

a multi-beam transmitter for outputting a plurality of beams,

wherein the multi-beam transmitter includes a plurality of optical transmitters so as to form a plurality of space cells each having a predetermined size, and each of the plurality of optical transmitters includes at least one LD or at least one LED as a light source.

33. A space-division multiplex optical wireless local area network according to claim 32, wherein each of the plurality of terminals includes an optical transmitter having at least one light source, an optical receiver having an optical filter for selectively attenuating light transmitted from the transmitter of the terminal, and means for easily removing the optical filter.

34. A space-division multiplex optical wireless local area network according to claim 33, wherein each of the plurality of beams output from the multi-beam transmitter of the base station includes a spectrum component having a sufficient intensity different from the spectrum components of any one of wavelength bands used by each of the plurality of terminals.

35. A space-division multiplex optical wireless local area network according to claim 33, wherein each of the plurality of beams output from the multi-beam transmitter of the base station includes at least one wavelength band used by the

plurality of terminals and a spectrum component having a sufficient intensity other than the at lease one wavelength band.

36. An optical wireless communication method for use in a space-division multiplex optical wireless local area network for interconnecting a plurality of terminals via a base station, wherein before communication between the base station and a specific terminal among the plurality of terminals, the method executes the steps of:

(a) the base station detecting a communication request light signal transmitted from the specific terminal;

(b) the base station performing an operation based on the communication request signal to obtain data indicating a light signal intensity of the communication request signal or data indicating a light signal/noise intensity ration, and recognizing a space cell, the specific terminal being positioned in the space cell;

(c) the base station notifying the specific terminal of the data indicating a light signal intensity of the communication request signal or the data indicating a light signal/noise intensity ratio;

(d) a direction of an optical transmitter-receiver of the specific terminal being manually adjusted by a user while recognizing the data indicating a light signal intensity of the communication request signal or the data indicating a light signal/noise intensity ratio; and

(e) the base station transmitting a signal indicating communication permission to the specific terminal when a value of the data indicating a light signal intensity of the communication request signal or a value of the data indicating a light signal/noise intensity ratio reaches a predetermined value.

37. A base station according to claim 27, wherein the optical receiver of an angle-diversity type includes a lens system dedicated to reception having a spatial

resolution higher than a spatial resolution of the plurality of space cells each having a predetermined size.

38. A base station according to claim 28, wherein the optical receiver of an angle-diversity type includes a lens system dedicated to reception having a spatial resolution higher than a spatial resolution of the plurality of space cells each having a predetermined size.

39. A base station according to claim 29, wherein the optical receiver of an angle-diversity type includes a lens system dedicated to reception having a spatial resolution higher than a spatial resolution of the plurality of space cells each having a predetermined size.

40. A base station according to claim 27, wherein a radius of a space cell provided by each of the plurality of optical transmitters is in a range from 20 cm to 100 cm at a predetermined maximum possible distance for communication.

41. A base station according to claim 28, wherein a radius of a space cell provided by each of the plurality of optical transmitters is in a range from 20 cm to 100 cm at a predetermined maximum possible distance for communication.

42. A base station according to claim 29, wherein a radius of a space cell provided by each of the plurality of optical transmitters is in a range from 20 cm to 100 cm at a predetermined maximum possible distance for communication.

43. A base station according to claim 30, wherein a radius of a space cell provided by each of the plurality of optical transmitters is in a range from 20 cm to 100 cm at a predetermined maximum possible distance for communication.